# EXHIBIT A

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**PATENT APPLICATION**

| | |
|---|---|
| Applicant(s): | **Mark Dilman et al.** |
| Serial No.: | **09/813,415** |
| Examiner: | **Bilgrami, Asghar H.** |
| Filed: | **March 21, 2001** Group Art Unit: **2143** |
| Confirmation #: | **2405** Case: **1-6** |
| Title: | **METHOD AND APPARATUS FOR EFFICIENT REACTIVE MONITORING** |

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9-17-07
Date

S I R:

**RESPONSE UNDER 37 C.F.R. §1.116**

In response to the final Office Action mailed July 17, 2007, please consider the above-identified patent application as follows.

In the event that an extension of time is required for this response to be considered timely, and a petition therefor does not otherwise accompany this response, any necessary extension of time is hereby petitioned for.

The Commissioner is authorized to charge any fees due, including extension of time and excess claim fees, to counsel's Deposit Account No. 20-0782/LCNT/Dilman 1.



PAGE 1/16 * RCVD AT 9/17/2007 5:00:59 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-3/4 * DNIS:2738300 * CSID:+17325309808 * DURATION (mm-ss):04-50

**IN THE CLAIMS:**

Please consider the claims as follows:

1. (previously presented) A method for monitoring usage of resources allocated to a plurality of nodes of a network, comprising the steps of:

assigning a parameter to each of a plurality of nodes of the network, wherein each parameter is indicative of a rate of change of usage of said resources of the node;

locally monitoring, at each of the nodes, the rate of change of the usage of said resources of the node;

reporting to a centralized management station of the network when the rate of change of the usage of the resources of one of the nodes exceeds a first threshold;

initiating a poll of resources of nodes of the network by the centralized management station in response to reporting from the node or a time interval being exceeded;

determining whether a sum of the currently reported rates of change of usage of node resources, received in response to the poll initiated by the management station, exceeds a second threshold; and

generating an alarm if the sum of the currently reported rates of change of usage of node resources exceeds the second threshold, else updating the time interval.

2-5. (cancelled)

6. (previously presented) The method of claim 1, further including the step of adjusting the usage of the resources at one or more of said nodes.

7. (previously presented) A method for monitoring usage of a resource in nodes of a network, comprising the steps of:

(a) monitoring usage of the resource in a node to determine when a rate of change of the usage exceeds a first predetermined threshold;

(b) reporting to a management station of the network when the rate of change of

the usage exceeds said first predetermined threshold; and

(c) initiating a poll of resources in the nodes of the network by the management station in response to reporting from the node or a time interval being exceeded.

8. (previously presented) A method for monitoring usage of resources in nodes of a network, comprising the steps of:

asynchronous reporting of an event to a management station of the network when a rate of change of a usage of at least one resource of said resources in any of said nodes deviates from a prescribed norm; and

periodic polling of said nodes in accordance with a polling interval, and aperiodic polling of said nodes in response to reporting of said event, wherein a tunable parameter is adjusted in response to the usage.

9. (previously presented) A method for managing a global resource of a network in order to reduce the amount of monitoring related traffic, comprising the steps of:

assigning a local threshold to each of a plurality of node resources of a respective plurality of nodes of the network;

reporting to a management station of the network when a value indicative of node resource usage exceeds the assigned local threshold as determined using local monitoring of the node resource;

initiating a poll, by the management station, of node resource usage by the nodes of the network in response to a determination that a sum of previously reported values indicative of node resource usage received from reporting nodes plus an upper bound of node resource usage for non-reporting nodes exceeds a threshold; and

generating an alarm if the sum of the currently reported values indicative of node resource usage, received in response to the poll initiated by the management station, exceeds the threshold.

10. (previously presented) A method for managing a global resource of a

network in order to reduce the amount of monitoring related traffic, comprising the steps of:

assigning a local threshold to each of a plurality of node resources of a respective plurality of nodes of the network;

reporting to a management station of the network when a rate of change of usage of said node resource exceeds the local threshold as determined using local monitoring of the node resource, wherein said rate of change of usage of said node resource is determined using a variable time interval comprising a difference between a current time and a time at which the node was last polled by the management station;

initiating a poll, by the management station, of the node resource usage of the nodes of the network in response to receiving reporting from one of the nodes or a time interval being exceeded;

determining whether a sum of the currently reported rates of change of usage of node resources, received in response to the poll initiated by the management station, exceeds a threshold; and

generating an alarm if the sum of the currently reported rates of change of usage of node resources exceeds the threshold.

11. (previously presented) The method defined in claim 8 wherein said nodes are selected from the group consisting of routers, switches, bridges, and firewall devices.

12. (previously presented) The method defined in claim 8 wherein said nodes are selected from the group consisting of servers, hosts, and layer 4-7 switches.

13. (cancelled)

14. (previously presented) The method of claim 7, further comprising:

(d) summing all the reported rate of change of the usage of the resources; and

(e) generating an alarm if the sum exceeds a second threshold, else updating the

time interval.

## REMARKS

This response is intended as a full and complete response to the final Office Action mailed July 17, 2007. In the Office Action, the Examiner notes that claims 1, 6-12 and 14 are pending and rejected.

In view of both the following remarks, Applicants submit that none of the claims now pending in the application are obvious under the provisions of 35 U.S.C. §103. Thus, Applicants believe that all of the claims are now in allowable form.

It is to be understood that Applicants do not acquiesce to the Examiner's characterizations of the art of record or to Applicants' subject matter recited in the pending claims. Further, Applicants are not acquiescing to the Examiner's statements as to the applicability of the art of record to the pending claims by filing the instant response.

## REJECTIONS

### 35 U.S.C. §103

The Examiner has rejected claims 1, 6, 9 and 10 under 35 U.S.C. §103(a) as being unpatentable over Boukobza et al. (U.S. Patent No. 6,122,664, hereinafter "Boukobza) and Robinson et al. (U.S. Patent 6,570,867, hereinafter "Robinson"). Applicants respectfully traverse the rejection.

#### Claim 1

According to MPEP §2143, to establish a prima facie case of obviousness under §103, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The Office Action failed to establish a *prima facie* case of obviousness, because the combination of Boukobza and Robinson fails to teach or suggest all the claim limitations. Namely, the combination of Boukobza and Robinson fails to teach or suggest at least the features of monitoring the rate of change of usage of resources at one or more nodes and reporting to a centralized management station of the network when the rate of change of the usage of the resources of one of the nodes exceeds a threshold, as claimed in Applicants' claim 1.

Boukobza discloses a process for monitoring a plurality of object types of a plurality of nodes including a management node in an information system. As disclosed in Boukobza, monitoring is configured and then distributed in a filtered way from the management node to autonomous agents installed in each of the nodes to be monitored in order either to locally process the different object types or all of the objects of a domain called a global object, or to feed back information to be displayed in a graphical interface of the management node. Boukobza further discloses that each agent includes a plurality of modules specific to the different object types or to a particular domain, and that each module measures static and dynamic parameters particular to the object type it monitors and collects the measurements. (Boukobza, Abstract).

Boukobza, however, fails to teach or suggest at least the features of monitoring a rate of change of usage of resources at one or more nodes and reporting to a centralized management station of the network when the rate of change of the usage of the resources of one of the nodes exceeds a threshold, as claimed in Applicants' claim 1. Rather, although Boukobza states that a module on a node that is being monitored measures both static and dynamic parameters particular to an object that the module monitors, Boukobza fails to teach or suggest monitoring a rate of change of usage of a resource, as claimed in Applicants' claim 1. A generic statement that a node being monitored measures dynamic parameters, as taught in Boukobza, does not teach or suggest monitoring a rate of change, much less a rate of change of the usage of the resources of a node, as claimed in Applicants' claim 1.

In the Office Action, the Examiner cites specific portions of Boukobza (namely, Col. 1, Lines 33-35 and Col. 2, Lines 21-55), asserting that the cited portions of Boukobza disclose Applicants' limitations of "assigning a parameter to each of a plurality

of nodes of the network, wherein each parameter is indicative of a rate of change of usage of said resources of the node," "locally monitoring, at each of the nodes, the rate of change of the usage of said resources of the node," and "reporting to a centralized management station of the network when the rate of change of the usage of the resources of one of the nodes exceeds a first threshold," as claimed in Applicants' claim 1. (Office Action, Pg. 2).

The cited portions of Boukobza, however, fail to teach or suggest any parameter indicative of a rate of change of usage of a resource or monitoring a rate of change of usage of a resource. Rather, the cited portions of Boukobza merely describe generic parameters that may be measured or tested relative to predefined thresholds. The cited portions of Boukobza do not teach or suggest monitoring a rate of change of usage of a resource. Applicants respectfully request that the Examiner specifically point out where in the cited portion of Boukobza, or any other portion of Boukobza, there is any teaching or suggestion of a monitoring a rate of change of usage of a resource.

Thus, since Boukobza fails to teach or suggest a rate of change of usage of a resource, Boukobza must fail to teach or suggest at least the limitations of "assigning a parameter to each of a plurality of nodes of the network, wherein each parameter is indicative of a rate of change of usage of said resources of the node," "locally monitoring, at each of the nodes, the rate of change of the usage of said resources of the node," and "reporting to a centralized management station of the network when the rate of change of the usage of the resources of one of the nodes exceeds a first threshold," as claimed in Applicants' claim 1.

Furthermore, Robinson fails to bridge the substantial gap between Boukobza and Applicants' claim 1.

In general, Robinson discloses a network management framework for monitoring network-level concepts of routes and paths. As disclosed in Robinson, a route and path management system includes a data collector for collecting data from individual network elements, a management server for processing the collected data into manageable route and path objects, and a graphical user interface for allowing a user to manage and monitor routes and paths. (Robinson, Abstract).

Robinson, however, fails to teach or suggest at least the features of monitoring the rate of change of usage of resources at one or more nodes and reporting to a centralized management station of the network when the rate of change of the usage of the resources of one of the nodes exceeds a threshold.

Rather, Robinson merely describes a polling rate, which, as stated in Robinson, is a rate at which network elements are polled by a management system. (Robinson, Col. 7, Lines 20-25). A polling rate at which network elements are polled by a management system, as taught in Robinson, is not a rate of change of usage of a resource at a node, as claimed in Applicants' claim 1.

Thus, since Robinson fails to teach or suggest a rate of change of usage of a resource, Robinson must fail to teach or suggest at least the limitations of "assigning a parameter to each of a plurality of nodes of the network, wherein each parameter is indicative of a rate of change of usage of said resources of the node," "locally monitoring, at each of the nodes, the rate of change of the usage of said resources of the node," and "reporting to a centralized management station of the network when the rate of change of the usage of the resources of one of the nodes exceeds a first threshold," as claimed in Applicants' claim 1.

Thus, since Boukobza and Robinson each fails to teach or suggest a rate of change of usage of a resource, any permissible combination of Boukobza and Robinson must fail to teach or suggest a rate of change of usage of a resource and, therefore, any permissible combination of Boukobza and Robinson must fail to teach or suggest suggest at least the limitations of "assigning a parameter to each of a plurality of nodes of the network, wherein each parameter is indicative of a rate of change of usage of said resources of the node," "locally monitoring, at each of the nodes, the rate of change of the usage of said resources of the node," and "reporting to a centralized management station of the network when the rate of change of the usage of the resources of one of the nodes exceeds a first threshold," as claimed in Applicants' claim 1.

Furthermore, since Boukobza and Robinson each fail to teach or suggest monitoring a rate of change of usage of a resource, Boukobza and Robinson must each also fail to teach or suggest other limitations of Applicants' claim 1 associated with a rate of change of usage of a resource. Specifically, Boukobza and Robinson must also

fail to teach or suggest each of the limitations of "determining whether a sum of the currently reported rates of change of usage of node resources, received in response to the poll initiated by the management station, exceeds a second threshold" and "generating an alarm if the sum of the currently reported rates of change of usage of node resources exceeds the second threshold, else updating the time interval," as claimed in Applicants' claim 1.

Thus, Boukobza and Robinson, alone or in combination, fail to teach or suggest Applicants' claim 1, as a whole. Therefore, independent claim 1 is patentable over Boukobza and Robinson and, thus, fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. Furthermore, claim 6 depends directly from independent claim 1 and recites additional limitations therefor. Therefore, dependent claim 6 also is not obvious over Boukobza in view of Robinson, and, thus, fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder.

Accordingly, Applicants respectfully request that the rejection be withdrawn.

**Claim 9**

As described herein, Boukobza discloses a process for monitoring a plurality of object types of a plurality of nodes including a management node in an information system and Robinson discloses a network management framework for monitoring network-level concepts of routes and paths.

Boukobza and Robinson, however, alone or in combination, fail to teach or suggest Applicants' claim 9, as a whole. Namely, Boukobza and Robinson, alone or in combination, fail to teach or suggest at least the limitation of "initiating a poll, by the management station, of node resource usage by the nodes of the network in response to a determination that a sum of previously reported values indicative of node resource usage received from reporting nodes plus an upper bound of node resource usage for non-reporting nodes exceeds a threshold," as claimed in Applicants' claim 9. Thus, Boukobza and Robinson, alone or in combination, fail to teach or suggest Applicants' claim 9, as a whole.

Furthermore, Applicants note that, according to MPEP §2142, "[t]he examiner bears the initial burden of factually supporting any *prima facie* conclusion of

obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness."

The Examiner has failed to produce a prima facie case of obviousness of Applicants' claim 9. Specifically, the Examiner has failed to provide any arguments or evidence addressing Applicants' claim 9 limitation of "initiating a poll, by the management station, of node resource usage by the nodes of the network in response to a determination that a sum of previously reported values indicative of node resource usage received from reporting nodes plus an upper bound of node resource usage for non-reporting nodes exceeds a threshold." The Examiner simply does not address this limitation anywhere in the Office Action. Rather, the Examiner merely refers to the limitations of Applicants' claim 1 in applying a rejection of Applicants' claims 1 and 9, without regard for the differences between Applicants' claim 1 and claim 9. Accordingly, Applicants respectfully submit that the Examiner has failed to produce a prima facie case of obviousness of Applicants' claim 9.

As such, independent claim 9 fully satisfies the requirements of 35 U.S.C. §103 and is patentable over Boukobza and Robinson. Accordingly, Applicants respectfully request that the rejection be withdrawn.

**Claim 10**

As described herein, Boukobza discloses a process for monitoring a plurality of object types of a plurality of nodes including a management node in an information system and Robinson discloses a network management framework for monitoring network-level concepts of routes and paths.

As further described herein, with respect to claim 1, Boukobza and Robinson, alone or in combination, fail to teach or suggest a rate of change of usage of a resource.

Thus, for at least the reasons described herein with respect to claim 1, Applicants respectfully submit that Boukobza and Robinson, alone or in combination, fail to teach or suggest at least the limitation of "reporting to a management station of the network when a rate of change of usage of said node resource exceeds the local threshold as determined using local monitoring of the node resource," as claimed in Applicants' claim 10.

Additionally, Applicants respectfully submit that Boukobza and Robinson, alone or in combination, also fail to teach or suggest a variable time interval comprising a difference between a current time and a time at which the node was last polled by the management station. Thus, Boukobza and Robinson, alone or in combination, must also fail to teach or suggest at least the limitation that "said rate of change of usage of said node resource is determined using a variable time interval comprising a difference between a current time and a time at which the node was last polled by the management station," as claimed in Applicants' claim 10.

Furthermore, Applicants note that, similar to claim 9, the Examiner has failed to provide any arguments or evidence addressing Applicants' claim 10 limitation of "wherein said rate of change of usage of said node resource is determined using a variable time interval comprising a difference between a current time and a time at which the node was last polled by the management station." The Examiner simply does not address this limitation anywhere in the Office Action. Rather, the Examiner merely refers to the limitations of Applicants' claim 1 in applying a rejection of Applicants' claims 1 and 10, without regard for the differences between Applicants' claim 1 and claim 10. Accordingly, Applicants respectfully submit that the Examiner has failed to produce a prima facie case of obviousness of Applicants' claim 10.

As such, independent claim 10 fully satisfies the requirements of 35 U.S.C. §103 and is patentable over Boukobza and Robinson. Accordingly, Applicants respectfully request that the rejection be withdrawn.

**Claims 7, 8, 11, 12 and 14**

Claims 7, 8, 11, 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mandal et al. (U.S. Patent No. 6,170,009, hereinafter "Mandal") and Robinson et al. (U.S. Patent No. 6,570,867, hereinafter "Robinson"). Applicants respectfully traverse the rejection.

Claim 7 recites the features of monitoring the rate of change of usage of resources at one or more nodes and reporting to a centralized management station of the network when the rate of change of the usage of the resources of one of the nodes exceeds a threshold. Mandal and Robinson, however, alone or in combination, fail to

teach or suggest those features.

In general, Mandal teaches control of devices on a network using policies. Specifically, Mandal discloses a system that allows an operator to specify a policy for controlling a group of devices. (Mandal, Abstract). In general, Robinson discloses a network management framework for monitoring network-level concepts of routes and paths. As disclosed in Robinson, a route and path management system includes a data collector for collecting data from individual network elements, a management server for processing the collected data into manageable route and path objects, and a graphical user interface for allowing a user to manage and monitor routes and paths. (Robinson, Abstract).

Mandal and Robinson, however, alone or in combination, for at least the reasons described in Applicants' response of December 22, 2006 to the Office Action dated September 26, 2006, as well as in Applicants' response of May 2, 2007 to the Office Action dated February 8, 2007, fail to teach or suggest at least the features of monitoring the rate of change of usage of resources at one or more nodes and reporting to a centralized management station of the network when the rate of change of the usage of the resources of one of the nodes exceeds a threshold.

In the present Office Action, the Examiner asserts that "Mandal describes a policy in which a network management system should allow no more than 30% (i.e., a threshold) of total bandwidth for video traffic transmission which depends on time. On col. 7, lines 29-67 Mandal describes the implementation of policies to control the flow of packets (i.e., traffic) with respect to time across the network. Therefore in order to implement such policy it has to monitor at periodic times (col. 6, lines 1-27) the rate of change of a parameter against a certain threshold." (Office Action, Pg. 7). Applicants respectfully disagree.

Applicants respectfully maintain that Mandal does not teach a rate of change of usage of a resource. Rather, Mandal teaches a policy in which a value of a resource is compared against a threshold. As taught in Mandal, the resource that is monitored is the percentage of available bandwidth that is used for video traffic. Mandal does not teach a policy in which a rate of change of the resource (percentage of video traffic) is compared to a threshold; rather, Mandal teaches a policy in which the current value of

the resource (percentage of video traffic) is compared to a threshold. As such, a value of the usage of a resource, as taught in Mandal, is not a rate of change of usage of a resource, as claimed in Applicants' claim 10.

Applicants note that differences between Mandal and Applicants' claim 7 may be better understood with respect to an example. As taught in Mandal, the current value of the percentage of video traffic is measured and compared to a threshold. For example, assume that a current value of the percentage of video traffic is measured to be 25%, and that this measured value is compared to a threshold (e.g., 30%). This measurement of a value of the current percentage of video traffic simply does not teach or suggest a rate at which the percentage of video traffic changes. For example, assume that over the last 10 seconds, the percentage of video traffic has increased from 10% to 40%. This example corresponds to a rate of change of the usage of the resource (e.g., in this example, the percentage of video traffic) of 4% per second. Thus, from this example, it is clear that monitoring a value of usage of a resource, as taught in Mandal, does not teach or suggest monitoring a rate of change of usage of a resource, as claimed in Applicants' claim 7.

In other words, as taught in Mandal, an instantaneous value of the usage of a resource is measured. An instantaneous value of the usage of a resource, as taught in Mandal, is simply not a rate of change of the usage of a resource, as claimed in Applicants' claim 7. A rate of change is clearly measured using a time interval, or some other interval by which rate of change may be measured. There is no time interval in Mandal. Mandal is devoid of any teaching or suggestion of monitoring any rate of change. As such, since Mandal fails to teach or suggest a rate of change, Mandal must also fail to teach or suggest a rate of change of usage of a resource, as claimed in Applicants' claim 7.

Thus, since Mandal and Robinson each fail to teach or suggest a rate of change of the usage of resources, any permissible combination of Mandal and Robinson must also fail to teach or suggest a rate of change of the usage of resources. Thus, Mandal and Robinson, alone or in combination, fail to teach or suggest Applicants' claim 7, as a whole.

Therefore, independent claim 7 is patentable over Mandal and Robinson and, thus, fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. Similarly, independent claim 8 recites features similar to the features of claim 7. Namely, independent claim 8 also includes the feature of a rate of change of the usage of resources. As such, for at least the same reasons discussed herein with respect to claim 7, independent claim 8 also is patentable over Mandal and Robinson and, thus, fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder.

Claims 11, 12 and 14 depend directly from independent claim 8 and recite additional limitations therefor. Therefore, dependent claims 11, 12 and 1 also are not obvious Mandal and Robinson, and, thus, fully satisfy the requirements of 35 U.S.C. §103 and is patentable thereunder.

Accordingly, Applicants respectfully request that the rejection be withdrawn.

## SECONDARY REFERENCES

The secondary references made of record are noted. However, it is believed that the secondary references are no more pertinent to Applicants' disclosure than the primary references cited in the Office Action. Therefore, Applicants believe that a detailed discussion of the secondary references is not necessary for a full and complete response to this Office Action.

## CONCLUSION

Thus, Applicants submit that all of the claims presently in the application are non-obvious and are patentable under the provisions of 35 U.S.C. §103. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Michael Bentley or Eamon J. Wall at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

Dated: 9/17/07

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May-02-2007 11:01am From-Moser, Patterson & Sheridan, LLP - NJ +17325309808 T-093 P.001 F-236

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**PATENT APPLICATION**

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| Applicant(s): | **Mark Dilman et al.** | | |
| Serial No.: | **09/813,415** | | |
| Examiner: | **Bilgrami, Asghar H.** | | |
| Filed: | **March 21, 2001** | Group Art Unit: | **2143** |
| Confirmation #: | **2405** | Case: | **1-6** |
| Title: | **METHOD AND APPARATUS FOR EFFICIENT REACTIVE MONITORING** | | |

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5-2-07
Date

S I R:

**RESPONSE UNDER 37 C.F.R. §1.111**

In response to the Office Action mailed February 8, 2007, please consider the above-identified patent application as follows.

In the event that an extension of time is required for this response to be considered timely, and a petition therefor does not otherwise accompany this response, any necessary extension of time is hereby petitioned for.

The Commissioner is authorized to charge any fees due, including extension of time and excess claim fees, to counsel's Deposit Account No. 20-0782/LCNT/Dilman 1.

**IN THE SPECIFICATION:**

Please amend the specification as follows:

Please replace the paragraph beginning on Page 2, Line 29 as follows:

In accordance with one embodiment of the present invention, our technique partitions a global resource ~~(e.g., a network of interconnected nodes or resources) into~~ across a plurality of separate nodes, giving a fixed resource budget to each of the nodes. When any of the nodes exceeds its budget, based upon local monitoring at that node, the node triggers a report, typically sending a message to a central manager, also known as a network management station. In response, the central manager then and only then issues a global poll of all (or substantially all) of the nodes in the network. The nodes ~~or resources~~ can be switches, routers, bridges, firewall devices, and/or other similar network elements, as well as application level elements, such as servers, hosts, and/or layer 4-7 switches.

Please replace the paragraph beginning on Page 3, Line 7 as follows:

In accordance with another embodiment of the present invention, a rate based technique is arranged such that a local element (node) monitors its own resource usage locally, and reports (i.e., sends a message to a central monitoring location) only when the rate at which the resource usage, as measured by a value of a local variable, changes, e.g., is too high. This allows the central manager to assume that as long as no report was received, the resource usage change ~~rates~~ rate at each node is bounded. Again, when the node triggers a report, the central manager then and only then issues a global poll of all (or substantially all) of the nodes in the network.

**IN THE CLAIMS:**

Please amend the claims as follows:

1. (currently amended) A method for monitoring usage of resources allocated to a plurality of nodes of a network, comprising the steps of:

~~(a)~~ assigning ~~to a node~~ a parameter to each of a plurality of nodes of the network, wherein each parameter is indicative of a rate of change of usage of said resources of the node;

~~(b)~~ locally monitoring, at each of the ~~node~~ nodes, the rate of change of the usage of said resources of the node;

~~(c)~~ reporting to a centralized management station of the network when the rate of change of the usage of the resources of one of the nodes exceeds a first ~~predetermined~~ threshold; ~~and~~

~~(d)~~ initiating a ~~global~~ poll of resources of ~~at least one other node from the plurality of~~ nodes of the network by the centralized management station in response to reporting from the node or a time interval being exceeded;

determining whether a sum of the currently reported rates of change of usage of node resources, received in response to the poll initiated by the management station, exceeds a second threshold; and

generating an alarm if the sum of the currently reported rates of change of usage of node resources exceeds the second threshold, else updating the time interval.

2-5. (cancelled)

6. (previously presented) The method of claim 1, further including the step of adjusting the usage of the resources at one or more of said nodes.

7. (previously presented) A method for monitoring usage of a resource in nodes of a network, comprising the steps of:

(a) monitoring usage of the resource in a node to determine when a rate of

change of the usage exceeds a first predetermined threshold;

(b) reporting to a management station of the network when the rate of change of the usage exceeds said first predetermined threshold; and

(c) initiating a poll of resources in the nodes of the network by the management station in response to reporting from the node or a time interval being exceeded.

8. (previously presented) A method for monitoring usage of resources in nodes of a network, comprising the steps of:

asynchronous reporting of an event to a management station of the network when a rate of change of a usage of at least one resource of said resources in any of said nodes deviates from a prescribed norm; and

periodic polling of said nodes in accordance with a polling interval, and aperiodic polling of said nodes in response to reporting of said event, wherein a tunable parameter is adjusted in response to the usage.

9. (Currently Amended) A ~~technique~~ method for managing a global resource of a network in order to reduce the amount of monitoring related traffic, comprising the steps of:

~~partitioning the global resource into a plurality of node resources, wherein each node resource is assigned to a separate node of the network;~~

assigning a ~~budget~~ local threshold to each ~~said~~ of a plurality of node ~~resource~~ resources of a respective plurality of nodes of the network;

reporting to a management station of the network when a ~~node~~ value indicative of node resource usage exceeds the assigned ~~budget~~ local threshold as determined using local monitoring of the node resource;

initiating a poll, by the management station, of node resource usage by the nodes of the network in response to a determination that a sum of previously reported ~~budget~~ values indicative of node resource usage received from reporting nodes plus an upper bound of ~~budget values~~ node resource usage for non-reporting nodes exceeds a threshold; and

generating an alarm if the sum of the currently reported ~~budget~~ values indicative of node resource usage, received in response to the poll initiated by the management station, ~~of the reporting nodes~~ exceeds the threshold.

10. (currently amended) A ~~technique~~ method for managing a global resource of a network in order to reduce the amount of monitoring related traffic, comprising the steps of:

~~partitioning the global resource into a plurality of node resources, wherein each node resource is assigned to a separate node of the network;~~

assigning ~~to the node a rate of usage of the~~ a local threshold to each ~~said~~ of a plurality of node ~~resource~~ resources of a respective plurality of nodes of the network;

reporting to a management station of the network when ~~said~~ a rate of change of usage of said node resource exceeds ~~a pre-determined~~ the local threshold as determined using local monitoring of the node resource, wherein said rate of change of usage of said node resource is determined using a variable time interval comprising a difference between a current time and a time at which the node was last polled by the management station;

initiating a poll, by the management station, of the node resource usage of the nodes of the network in response to receiving reporting from one of the nodes or a time interval being exceeded;

determining whether ~~the~~ a sum of the currently reported rates of change of usage of node resources, received in response to the poll initiated by the management station, ~~of the reporting nodes~~ exceeds a threshold; and

generating an alarm if the sum of the currently reported rates of change of usage of node resources ~~of the reporting nodes~~ exceeds the threshold.

11. (previously presented) The method defined in claim 8 wherein said nodes are selected from the group consisting of routers, switches, bridges, and firewall devices.

12. (previously presented) The method defined in claim 8 wherein said nodes are selected from the group consisting of servers, hosts, and layer 4-7 switches.

13. (cancelled)

14. (previously presented) The method of claim 7, further comprising:

(d) summing all the reported rate of change of the usage of the resources; and

(e) generating an alarm if the sum exceeds a second threshold, else updating the time interval.

## REMARKS

This response is intended as a full and complete response to the Office Action mailed February 8, 2007. In the Office Action, the Examiner notes that claims 1 and 6-14 are pending and rejected. By this response, Applicants have amended claims 1, 9, and 10. Claim 13 is hereby cancelled. No new matter has been added.

In view of both the foregoing amendments and the following remarks, Applicants submit that none of the claims now pending in the application are obvious under the provisions of 35 U.S.C. §103. Thus, Applicants believe that all of the claims are now in allowable form.

It is to be understood that Applicants, by amending the claims, do not acquiesce to the Examiner's characterizations of the art of record or to Applicants' subject matter recited in the pending claims. Further, Applicants are not acquiescing to the Examiner's statements as to the applicability of the art of record to the pending claims by filing the instant response including amendments.

## OBJECTIONS

Claims 1, 7, 8, 9, 10 are objected to because of the following informalities: "Since the terms node and recourse are not clearly defined in the specification therefore one in the ordinary skill in the art cannot determine in light of the specification which term depends on the other or whether that are the same entity." Applicants respectfully disagree.

Applicants respectfully submit that the terms "node" and resource" are clear from Applicants' specification and drawings. Applicants' entire specification, and associated drawings, with the exception of the Summary of Invention section of Applicants' specification clearly distinguish between nodes (i.e., network elements) and resources of the nodes, where the usage of such resources is monitored at each of the nodes. Applicants have herein amended portions of Summary of Invention section of Applicants' specification to ensure consistency between use of the terms "node" and "resource" therein and use of the terms "node" and "resource" in the remainder of Applicants' specification and the associated drawings.

Applicants respectfully submit that support for such amendments may clearly be found in Applicants' specification and drawings, as originally filed.

For example, Applicants' specification, with respect to Figure 1, states that "Fig. 1 is a block diagram illustrating a network of interconnected nodes, and a network management station arranged to monitor and control resource usage at the nodes...." Similarly, for example, Applicants' specification with respect to Figure 2, states that "Fig. 2 is a flow diagram of the resource utilization monitoring process performed at the nodes in Fig. 1, in a first embodiment of the invention which monitors the value of the resources...." In other words, nodes and resources are clearly defined.

Furthermore, the Detailed Description of Applicants' specification properly uses the terms "node" and "resource". For example, with respect to the description of Figure 1, Applicants' specification states that "Fig. 1 is a block diagram illustrating a network 100 of interconnected nodes 130-132 and 150-152, each of which has an assigned budget value. In a real embodiment, nodes 130-132 and 150-152 may be switches in an ATM network, some of which are connected to users such as user 101 through other networks, such as network 140 that contain other nodes, such as node 140. Other nodes, such as node 153 may be routers, bridges, or other similar network elements. Nodes can also be connected to a server 120 within a network 122 via a firewall 121. A network management station 160, connected to network 100 via node 132, is arranged to monitor and control resource usage at the other network nodes in accordance with principles of the present invention." (Specification, Pg. 7, Line 24 - Pg. 8, Line 1). In other words, nodes and resources are clearly defined.

Thus, for at least these reasons, and at least because of the portions of Applicants' specification reproduced herein, Applicants respectfully submit that the terms "node" and resource" are clear from Applicants' originally-filed specification and drawings. Furthermore, Applicants have herein amended the Summary of the Invention section of Applicants' specification to ensure consistency with the other portions of Applicants' specification, as well as the associated drawings.

Therefore, the objections should be withdrawn.

## REJECTIONS

**35 U.S.C. §112**

**Claims 1, 7, 8, 9, 10**

Claims 1, 7, 8, 9 and 10 are rejected under 35 U.S.C. §112, ¶1, as failing to comply with the enablement requirement. Specifically, the Examiner finds that "[t]he specification does not provide a clear description of a resource and a node. Additionally, the specification does not distinguish between nodes and resources. Since the terms node and resource are not clearly defined in the specification therefore one in the ordinary skill in the art cannot determine in light of the specification which term depends on the other or whether that are the same entity." Furthermore, with respect to claim 9, the Examiner further finds that "[t]he specification does not define the budget and the budget value." The Examiner further finds that "[t]he specification does not disclose how a global resource can be partitioned into a plurality of node resources." Applicants respectfully disagree.

With respect to the terms "node" and "resource", Applicants respectfully submit that the specification clearly distinguishes between nodes and resources for at least the reasons described hereinabove with respect to claims objections related to the terms "node" and "resource". As such, Applicants submit that claims 1, 7, 8, 9, and 10 each satisfy the requirements of 35 U.S.C. §112, ¶1, and are patentable thereunder.

With respect to the terms "budget" and "budget value", although Applicants believe that the terms "budget" and "budget value" are clearly defined in the Applicants' specification and associated drawings, Applicants have herein amended claim 9 to indicate that the term "budget" is a value threshold used for determining when the associated node should report to the management station, and the term "budget value" is a value indicative of the usage, or rate of change of usage, of a resource at the node to which that budget value is assigned. As such, Applicants submit that claim 9 satisfies the requirements of 35 U.S.C. §112, ¶1, and is patentable thereunder.

With respect to the limitation of partitioning a global resource into a plurality of node resources, although Applicants believe that the specification provides sufficient support for such limitation, Applicants have herein amended claims 9 and 10 to remove

this limitation. As such, Applicants submit that claims 9 and 10 satisfy the requirements of 35 U.S.C. §112, ¶1, and are patentable thereunder.

Therefore, the rejections should be withdrawn.

**35 U.S.C. §103**

The Examiner has rejected claims 1, 6-14 under 35 U.S.C. §103(a) as being unpatentable over Mandal (U.S. Patent 6,170,009, hereinafter "Mandal") and Robinson et al. (U.S. Patent 6,570,867, hereinafter "Robinson"). Applicants respectfully traverse the rejection.

**Claims 1, 7 and 8**

Claims 1 and 7 recite the features of monitoring the rate of change of usage of resources at one or more nodes and reporting to a centralized management station of the network when the rate of change of the usage of the resources of one of the nodes exceeds a threshold. Mandal and Robinson, however, alone or in combination, fail to teach or suggest those features.

In general, Mandal teaches control of devices on a network using policies. Specifically, Mandal discloses a system that allows an operator to specify a policy for controlling a group of devices. (Mandal, Abstract). In general, Robinson discloses a network management framework for monitoring network-level concepts of routes and paths. As disclosed in Robinson, a route and path management system includes a data collector for collecting data from individual network elements, a management server for processing the collected data into manageable route and path objects, and a graphical user interface for allowing a user to manage and monitor routes and paths. (Robinson, Abstract).

Mandal and Robinson, however, alone or in combination, for at least the reasons described in Applicants' response of December 22, 2006 to the Office Action dated September 26, 2006, fail to teach of suggest at least the features of monitoring the rate of change of usage of resources at one or more nodes and reporting to a centralized

management station of the network when the rate of change of the usage of the resources of one of the nodes exceeds a threshold.

Furthermore, in the Office Action, the Examiner asserts that "Mandal describes a policy in which a network management system should allow no more than 30% of total bandwidth for video. Therefore in order to implement such policy it has to monitor at periodic times (col. 6, lines 1-27) the rate of change of a parameter against a certain threshold, which is 30% in this example (please read col. 3, lines 45-67)." (Office Action, Pg. 9). Applicants respectfully disagree.

Applicants respectfully maintain that Mandal does not teach a rate of change. Rather, Mandal teaches a policy in which a value of the percentage of bandwidth used for video, measured at a specific time, is compared against the 30% threshold. For example, at time $t_1$, the percentage of bandwidth which is used for video is 28%, which is less than the threshold of 30%. This simply does not teach or suggest a rate at which the percentage of bandwidth used for video changes. For example, a value of 28% at a specific point in time does not teach or suggest that the percentage of bandwidth used for video has changed at a rate of, for example, 3% per hour.

In other words, as taught in Mandal, the value is an instantaneous value, measured at a fixed point in time, that is compared against the threshold value. An instantaneous value measured at a fixed point in time, as taught in Mandal, is simply not a rate of change, as claimed in Applicants' claim 1. A rate is clearly measured using a time interval, or some other interval by which rate may be measured. There is no time interval in Mandal. Mandal is devoid of any teaching or suggestion of monitoring any rate. As such, since Mandal fails to teach or suggest a rate of change, Mandal must also fail to teach or suggest a rate of change of usage of a resource, as claimed in Applicants' claim 1.

Thus, since Mandal and Robinson each fail to teach or suggest a rate of change of the usage of resources, any permissible combination of Mandal and Robinson must also fail to teach or suggest a rate of change of the usage of resources. Thus, Mandal and Robinson, alone or in combination, fail to teach or suggest Applicants' claim 1, as a whole.

Therefore, independent claim 1 is patentable over Mandal and Robinson and, thus, fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. Similarly, independent claims 7 and 8 recite features similar to the features of claim 1. Namely, independent claims 7 and 8 also include the feature of a rate of change of the usage of resources. As such, for at least the same reasons discussed herein with respect to claim 1, independent claims 7 and 8 also are patentable over Mandal and Robinson and, thus, fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder. Accordingly, Applicants respectfully request that the rejection be withdrawn.

**Claim 9**

As described herein, Mandal teaches control of devices on a network using policies where each policy is automatically translated into lower-level device-specific commands which are sent to the devices across the network, and Robinson teaches a route and path management system including a data collector for collecting data from individual network elements, a management server for processing the collected data into manageable route and path objects, and a graphical user interface for allowing a user to manage and monitor routes and paths.

Mandal and Robinson, however, alone or in combination, fail to teach or suggest Applicants' claim 9, as a whole. Namely, Mandal and Robinson, alone or in combination, fail to teach or suggest at least the limitation of "initiating a poll, by the management station, of node resource usage by the nodes of the network in response to a determination that a sum of previously reported values indicative of node resource usage received from reporting nodes plus an upper bound of node resource usage for non-reporting nodes exceeds a threshold," as claimed in Applicants' claim 9.

With respect to polling, Mandal merely states that network devices may be polled periodically. More specifically, Mandal states that a topology service "maintains status information for the active devices coupled to the network by either periodically polling devices on network 108, or by merely listening to traffic on network 108 to determine which devices are responding to commands...." (Mandal, Col. 6, Lines 9-13). Mandal, however, is devoid of any teaching or suggestion of initiating a poll of network nodes in response to any determination that sum of previously reported values indicative of node

resource usage received from reporting nodes plus an upper bound of node resource usage for non-reporting nodes exceeds a threshold, as claimed in Applicants' claim 9.

Furthermore, Robinson fails to bridge the substantial gap between Mandal and Applicants' claim 9.

In general, Robinson describes the use of polling to perform path discovery, and polling network objects in an object queue to obtain performance data. Specifically, Robinson describes "polling each network object listed in the object queue 68 (new and old) through the data collector 21 to obtain performance data for each of the objects listed. The object performance logic 69 then forwards the polled responses obtained to the notification channel for notification to the GUI 23." (Robinson, Col. 12, Lines 20-23). Robinson, however, fails to teach or suggest at least the limitation of "initiating a poll, by the management station, of node resource usage by the nodes of the network in response to a determination that a sum of previously reported values indicative of node resource usage received from reporting nodes plus an upper bound of node resource usage for non-reporting nodes exceeds a threshold," as claimed in Applicants' claim 9.

In the Office Action, the Examiner cites specific portions of Robinson (Col. 2, Lines 60-67; Col. 3, Lines 1-33; Col. 5, Lines 3-12; Col. 12, Lines 26-44; and Col. 13, Lines 46-58), asserting that the cited portions of Robinson teach Applicants' limitation of "initiating a poll, by the management station, of node resource usage by the nodes of the network in response to a determination that a sum of previously reported budget values received from reporting nodes plus an upper bound of budget values for non-reporting nodes exceeds a threshold," as claimed in Applicants' claim 9. The cited portions of Robinson, however, fail to teach or suggest this limitation, or Applicants' amended limitation of "initiating a poll, by the management station, of node resource usage by the nodes of the network in response to a determination that a sum of previously reported values indicative of node resource usage received from reporting nodes plus an upper bound of node resource usage for non-reporting nodes exceeds a threshold," as claimed in Applicants' claim 9.

Rather, the cited portions of Robinson merely disclose various other teachings. With respect to the portions of Robinson cited by the Examiner, Col. 2, Lines 60-67 of Robinson merely includes general statements indicating that routes and paths in a

network provide managers with capabilities including troubleshooting, performance monitoring service level planning, and path provisioning. Similarly, for example, Col. 3, Lines 1-33 of Robinson merely includes general statements describing the advantages of using a data collector for collecting routing information from individual network devices versus device level management applications. Furthermore, Col. 3, Lines 1-33 of Robinson describes functions supported by the system of Robinson, such as real-time monitoring and reporting of device-level performance, storing and providing route history and path-level performance history, and raising and clearing of QoS alarms. Moreover, Col. 5, Lines 3-12 of Robinson merely includes general statements regarding the configuration of an IP network.

In other words, these portions of Robinson described above are completely devoid of any teaching or suggestion of initiating a poll of node resource usage by the nodes of the network in response to a determination that a sum of previously reported values indicative of node resource usage received from reporting nodes plus an upper bound of node resource usage for non-reporting nodes exceeds a threshold, as claimed in Applicants' claim 9. These portions of Robinson are devoid of any teaching or suggestion of any sums, previously reported values, values indicative of node resource usage, upper bounds, reporting and non-reporting nodes, or any of the other features of Applicants' limitation.

Furthermore, with respect to other portions of Robinson cited by the Examiner, Col. 12, Lines 26-44 and Col. 13, Lines 46-58, Robinson merely describes simple calculations and comparisons that are completely devoid of any teaching or suggestion of previously reported values indicative of node resource usage received from reporting nodes, an upper bound of node resource usage for non-reporting nodes, a sum of previously reported values indicative of node resource usage received from reporting nodes and an upper bound of node resource usage for non-reporting nodes, or a determination that such a sum exceeds a threshold.

More specifically, with respect to Col. 12, Lines 26-44, Robinson states that objects polled are compared to threshold data contained in a path queue and performance of each path listed therein is calculated. The comparison of polled objects to threshold data and calculation of path performance, as taught in Robinson, simply

does not teach or suggest the sum claimed in Applicants' claim 9. Furthermore, in the cited section of Robinson, Robinson describes forwarding of paths for which performance was calculated to route performance logic, which compares the obtained paths with old identification data in the route queue. The comparison of paths with information in a path queue, as taught in Robinson, simply does not teach or suggest the sum claimed in Applicants' claim 9. As such, the cited portion of Robinson clearly fails to teach or suggest at least the limitation of "initiating a poll, by the management station, of node resource usage by the nodes of the network in response to a determination that a sum of previously reported values indicative of node resource usage received from reporting nodes plus an upper bound of node resource usage for non-reporting nodes exceeds a threshold," as claimed in Applicants' claim 9.

Furthermore, with respect to Col. 13, Lines 46-58, Robinson states that performance of a specified route, and each of the associated paths and objects, is measured against appropriate performance thresholds located in the threshold crossing logic. The performance of a route, path, or object, as taught in Robinson, simply does not teach or suggest the sum claimed in Applicants' claim 9. Furthermore, in the cited section of Robinson, Robinson further states that once threshold calculations are completed, the historical performance monitoring process is repeated to obtain new performance values which are permanently stored and checked against threshold levels. In other words, Robinson merely includes general statements about threshold calculations, historical performance monitoring, and comparison of performance values against thresholds. Such general statements of Robinson simply do not teach or suggest the sum claimed in Applicants' claim 9. As such, the cited portion of Robinson clearly fails to teach or suggest at least the limitation of "initiating a poll, by the management station, of node resource usage by the nodes of the network in response to a determination that a sum of previously reported values indicative of node resource usage received from reporting nodes plus an upper bound of node resource usage for non-reporting nodes exceeds a threshold," as claimed in Applicants' claim 9.

Thus, since Mandal and Robinson each fail to teach or suggest "initiating a poll, by the management station, of node resource usage by the nodes of the network in response to a determination that a sum of previously reported values indicative of node

resource usage received from reporting nodes plus an upper bound of node resource usage for non-reporting nodes exceeds a threshold," any permissible combination of Mandal and Robinson must also fail to teach or suggest "initiating a poll, by the management station, of node resource usage by the nodes of the network in response to a determination that a sum of previously reported values indicative of node resource usage received from reporting nodes plus an upper bound of node resource usage for non-reporting nodes exceeds a threshold." Thus, Mandal and Robinson, alone or in combination, fail to teach or suggest Applicants' claim 9, as a whole.

As such, independent claim 9 fully satisfies the requirements of 35 U.S.C. §103 and is patentable over Mandal and Robinson. Accordingly, Applicants respectfully request that the rejection be withdrawn.

**Claim 10**

As described herein, Mandal teaches control of devices on a network using policies where each policy is automatically translated into lower-level device-specific commands which are sent to the devices across the network, and Robinson teaches a route and path management system including a data collector for collecting data from individual network elements, a management server for processing the collected data into manageable route and path objects, and a graphical user interface for allowing a user to manage and monitor routes and paths.

Mandal and Robinson, however, alone or in combination, fail to teach or suggest Applicants' claim 10, as a whole. Namely, as described herein with respect to claims 1 and 7, Mandal and Robinson, alone or in combination, fail teach or suggest a rate of usage of a node resource, as claimed in Applicants' claim 10. As such, for at least this reason, Applicants' claim 10 is patentable over Mandal and Robinson under 35 U.S.C. §103.

Furthermore, in the Office Action, the Examiner appears to have failed to provide any argument with respect to Applicants' limitation of "wherein said rate of change of usage of said node resource is determined using a variable time interval." As such, Applicants respectfully submit that Mandal and Robinson, alone or in combination, also

fail to teach or suggest a rate of change of usage of a node resource that is determined using a variable time interval, as claimed in Applicants' claim 10.

Moreover, Mandal and Robinson, alone or in combination, and for at least the reasons stated hereinabove, fail to teach or suggest at least the limitation of "reporting to a management station of the network when a rate of change of usage of said node resource exceeds the local threshold as determined using local monitoring of the node resource, wherein said rate of change of usage of said node resource is determined using a variable time interval comprising a difference between a current time and a time at which the node was last polled by the management station," as claimed in Applicants' claim 10.

Mandal is devoid of any teaching or suggestion of reporting by a network node to a management system. Rather, Mandal describes a management system that performs periodic polling of network devices, and which may listen to traffic on the network in order to determine which devices are responding to commands. (Mandal, Col. 6, Lines 9-13). Furthermore, even if Mandal did teach reporting by a network node to a management system, Mandal still fails to teach or suggest any rate that is determined using a variable time interval, much less that a rate of usage of a resource is determined using a variable time interval or that the time interval comprises a difference between a current time and a time at which the node was last polled by the management station, as claimed in Applicants' claim 10.

Furthermore, with respect to reporting by a network node to a management system, Robinson merely states that traps may be generated by network elements and reported to the management system. Specifically, Robinson states that "[t]raps generated by network elements 24 are received into the management server 22 through a trap gatherer 61 which is preferably implemented in the data collector 21. The trap gatherer 61 forwards each trap received to a trap handler 62 which is internal to the management server 22." (Robinson, Col. 9, Lines 60-64). Robinson, however, is devoid of any teaching or suggestion of any details of what triggers the traps to be sent, other than a general statement that traps are generated for significant events that occur between polling intervals.

Robinson fails to teach or suggest reporting to a management station of the network when a rate exceeds a threshold, much less reporting to a management station of the network when a rate of usage of a node resource exceeds a threshold, as claimed in Applicants' claim 10. Furthermore, even if Robinson did teach reporting to a management station of the network when a rate exceeds a threshold, Robinson is devoid of any teaching or suggestion of determining any rate, much less determining a rate using a variable time interval or that the variable time interval comprises a difference between a current time and a time at which the node was last polled by the management station.

As such, Robinson fails to teach or suggest "reporting to a management station of the network when a rate of change of usage of said node resource exceeds the local threshold as determined using local monitoring of the node resource, wherein said rate of change of usage of said node resource is determined using a variable time interval comprising a difference between a current time and a time at which the node was last polled by the management station," as claimed in Applicants' claim 10.

Thus, since Mandal and Robinson each fail to teach or suggest "reporting to a management station of the network when a rate of change of usage of said node resource exceeds the local threshold as determined using local monitoring of the node resource, wherein said rate of change of usage of said node resource is determined using a variable time interval comprising a difference between a current time and a time at which the node was last polled by the management station," any permissible combination of Mandal and Robinson must also fail to teach or suggest "reporting to a management station of the network when a rate of change of usage of said node resource exceeds the local threshold as determined using local monitoring of the node resource, wherein said rate of change of usage of said node resource is determined using a variable time interval comprising a difference between a current time and a time at which the node was last polled by the management station." Thus, Mandal and Robinson, alone or in combination, fail to teach or suggest Applicants' claim 10, as a whole.

As such, independent claim 10 fully satisfies the requirements of 35 U.S.C. §103 and is patentable over Mandal and Robinson. Accordingly, Applicants respectfully request that the rejection be withdrawn.

**Claims 6 and 11-24**

Claims 6 and 11-14 depend, either directly or indirectly, from independent claims 1, 7, and 8, and recite additional limitations therefor. Therefore, dependent claims 6 and 11-14 also are not obvious over Mandal in view of Robinson, and, thus, fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder.

Accordingly, Applicants respectfully request that the rejection be withdrawn.

**CONCLUSION**

Thus, Applicants submit that all of the claims presently in the application are non-obvious and are patentable under the provisions of 35 U.S.C. §103. Further, all claims satisfy the requirements of 35 U.S.C. §112. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Michael Bentley or Eamon J. Wall at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

Dated: 5/1/07

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